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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,705	10/17/2003	Yuuji Sawanaga	243643US-2TTC	8805
22850	7590	08/29/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			BLECK, CAROLYN M	
			ART UNIT	PAPER NUMBER
			3626	

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/686,705	SAWANAGA ET AL.	
	Examiner	Art Unit	
	Carolyn M. Bleck	3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 39-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>30 March 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the election filed on 12 July 2006. Claims 1-48 are pending. Claims 1-38 have been elected. The IDS filed on 30 March 2004 has been entered and considered.

Election/Restrictions

2. Claims 39-48 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 12 July 2006.

Applicant argues that there is not a serious burden on the Examiner to search and examine the entire application as originally filed. In response, the Examiner respectfully disagrees. Examining groups I and II is a serious burden because it would require the Examiner to search and review different classes and subclasses of art. Thus, the restriction is maintained.

3. This application contains claims 39-48 drawn to an invention nonelected with traverse in the reply filed on 12 July 2006. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(A) As per claims 1, 24, 31, and 33-38, “the expectancy” and “the determined level” lack proper antecedent basis. It is also unclear of “level of expectancy” is a threshold. Appropriate clarification is requested.

Claims 2-23, 25-30, and 32 incorporate the deficiencies of claims 1, 24, 31, and 33-38 through dependency.

(B) As per claim 14, “the expectancy is the parameter data predicted to be received at a predetermined time” is unclear. It is unclear if Applicant intends to claim that the parameter data is sent and received at a predetermined time.

Claim 15 incorporates the deficiencies of claim 14.

(C) As per claim 22, it is unclear what type of content the “first content, second content, and third content” include. It is unclear what the “first type” and “second type” of stored maintenance contract information includes. For purposes of applying prior art, the Examiner interprets claim 22 to require a first threshold level and a second threshold level exceeding the first threshold level, wherein notices are issues based on the stored contract information and the expectancy.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 8-9, 11-18, 23-30, 33-34, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz et al. (5,786,994) in view of Applicant's Background of the Invention.

(A) As per claims 1-2, Friz discloses a performance monitoring system for a laser medical imager in a medical facility connected to a performance monitoring system (46) (Abstract; col. 11 lines 44-65) comprising:

(a) a performance monitoring system for acquiring data representative of performance conditions, including errors, for the laser imager (Fig. 3, col. 3 lines 33-45, col. 8 line 61 to col. 9 line 11, col. 11 lines 44-65, col. 21 lines 33-49);

(b) memory in the performance monitoring system for storing the data representative of performance conditions for the laser imager (Fig. 3, col. 11 line 44 to col. 12 line 21);

(c) system (46) for logging the frequency of errors (col. 15 lines 34-61); and

(d-e) system (46) for comparing the frequency of each type of error to a threshold, wherein if the frequency of a particular error exceeds the threshold, system (46) recognizes a potential oncoming fault condition and automatically initiates an order

for a service technician to visit the location associated with the particular laser imager and visually displaying a report on a panel of the errors for a laser imager user (col. 12 lines 13-21; col. 15 lines 34-61).

Friz does not expressly disclose a prediction unit configured to calculate an expectancy of the parameter data to be received in the future based on the stored parameter data. Fritz suggests that the system anticipates conditions that could render a laser imager unusable (col. 15 lines 34-61).

However, Applicant's Background of the Invention admits that this is well known in the art. See Applicant's specification, lines 8-11, "Still further, it is also known, in a general maintenance field, that a future expectancy is predicted based on measured values and an advance response is performed according to a comparison between the future expectancy and a predetermined reference value."

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Applicant's Background of the Invention within the system of Friz with the motivation of enabling a greater degree of anticipation of conditions that could render the laser imager unusable and proactively initiating a service call (Friz; col. 15 lines 54-61).

(B) As per claim 3, Friz discloses comparing the number of errors to a threshold (col. 15 lines 46-60). For the teaching of "the expectancy," it is noted that Applicant teaches this limitation in the Background of the Invention as being well known in the art. See the teaching of "an advance response is performed according to a comparison between the

future expectancy and a predetermined reference value." See Applicant's specification, lines 8-11.

(C) As per claim 4, Friz discloses a threshold including an upper threshold level (reference line (82)) and lower threshold level (reference line 84)) of the parameter data (Fig. 4-6c, col. 4 lines 12-41, col. 10 lines 31-58, col. 12 lines 38-65, col. 13 line 64 to col. 14 line 26).

(D) As per claims 8-9, Friz discloses issuing notices to electronic mail addressees and issuing reports of errors when a parameter exceeds a threshold as discussed in the rejection of claim 1. Friz does not expressly disclose having multiple thresholds and changing addresses and the content of messages based on the thresholds. The Examiner respectfully submits that utilizing multiple thresholds (i.e., ranges) and messaging and changing content based on which range the data falls into are well known in the art of programming, and one skilled in the art would have been motivated to modify the teachings of Friz and Applicant's Background of the Invention to include these features in order to ensure that the proper service technician is notified (Friz; col. 15 lines 33-60).

(E) As per claims 11, Applicant's Background of the Invention discloses the prediction unit calculates the expectancy by statistically analyzing the stored parameter data (page 2, lines 3-11).

(F) As per claims 12-13, Friz discloses the parameter data representing a characteristic regarding a part of the medical equipment at each of a plurality of times and the parameter data is given for each of a plurality of parts of the medical equipment (Fig. 4-9).

(G) As per claims 14-15 and 30, Friz discloses receiving and calculating data at a predetermined time (i.e., when the number of errors exceeds a threshold) (Fig. 4-9, col. 15 lines 33-60).

(H) As per claims 16-17, Friz discloses providing data and reports through a telecommunications network (col. 11 lines 45-65). See the rejection of claim 1 for a discussion of "the expectancy."

(I) As per claim 18, Friz discloses data being provided through electronic mail (col. 11 line 65 to col. 12 line 21). It is noted that electronic mail is provided through an Internet web site. See the rejection of claim 1 for a discussion of "the expectancy."

(J) Claim 23 repeats limitations addressed in claim 1, and therefore is rejected for the same reasons, and incorporated herein.

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(K) As per claim 24, Friz discloses a system sending a request to the processor from a user and visibly displaying the report in an electronic mail message or on a display of a user's computer (Fig. 3, col. 11 line 66 to col. 12 line 21). The remaining features repeat the limitations discussed in the rejection of claim 1, and therefore are rejected for the same reasons.

(L) Claim 25 repeats the limitations of claim 2, and therefore is rejected for the same reasons as claim 2.

(M) As per claim 26, Friz discloses a processor and laser imager in a medical facility (Fig. 3, col. 11 line 66 to col. 12 line 22).

(N) As per claim 27, Friz discloses a processor associated with the performance monitoring system (Fig. 3, col. 6 line 55 to col. 7 line 4, col. 11 line 66 to col. 12 line 22).

(O) As per claim 28, Friz discloses the informing unit issuing the notice allowing a reference of a graph which shows the stored parameter data and the expectancy with the first and second threshold levels in chronological order, wherein the stored parameter data and the expectancy are shown in a distinguishable manner (Fig. 4-6c, col. 4 lines 12-41, col. 10 lines 31-58, col. 11 line 66 to col. 12 line 21, col. 12 lines 38-65, col. 13 line 64 to col. 14 line 26).

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(P) Claim 29 repeats the limitations of claims 1, 24, and 30, and is therefore rejected for the same reasons as those claims, and incorporated herein.

(Q) Claim 33 repeats the limitations of claim 1, and therefore is rejected for the same reasons as claim 1.

(R) Claims 34 repeats the limitations of claims 1 and 24, and therefore is rejected for the same reasons as those claims.

(S) As per claim 36, Friz discloses a laser imager and processor (reads on “medical facility apparatus”) and a remote performance monitoring system (reads on “a medical equipment management apparatus”) (see Figure 3). The remaining features of claim 36 have been discussed in claim 1, and are rejected for the same reasons given for claim 1.

(T) As per claim 37, Friz discloses a user receiving an email on a computer for receiving reports about errors occurring on a laser imager (Fig. 3, col. 11 line 66 to col. 12 line 21). The remaining features of claim 37 have been discussed in claims 1 and 36, and are rejected for the same reasons given for those claims.

8. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz et al. (5,786,994) and Applicant's Background of the Invention as applied claim 1, in view of Ridolfo (6,735,549).

(A) As per claim 5, Friz and Applicant's Background of the Invention fail to expressly disclose the predetermined threshold includes an upper threshold level and a bottom threshold level of the parameter data.

Ridolfo discloses component monitoring utilizing alarm/alert limits using thresholds, bands, and frequency filters. It is noted that using bands and thresholds are considered to be a form of "an upper threshold level and a bottom threshold level of the parameter data."

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Ridolfo within the system of Friz and Applicant's Background of the Invention with the motivation of ensuring that equipment is repaired, refurbished, or replaced before the equipment fails (Ridolfo; col. 5 lines 7-14) and allowing data gathered on system components to be compared to expected regions of operation for the monitored components (Ridolfo; col. 5 lines 63-67).

(B) As per claims 6-7, Friz discloses the informing unit issuing the notice allowing a reference of a graph which shows the stored parameter data and the expectancy with the first and second threshold levels in chronological order, wherein the stored parameter data and the expectancy are shown in a distinguishable manner (Fig. 4-6c,

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col. 4 lines 12-41, col. 10 lines 31-58, col. 11 line 66 to col. 12 line 21, col. 12 lines 38-65, col. 13 line 64 to col. 14 line 26).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friz et al. (5,786,994) and Applicant's Background of the Invention as applied claim 1, in view of Kucek et al. (6,832,199).

(A) As per claim 10, Friz discloses messaging a service provider when the number of errors exceeds a threshold (col. 15 lines 33-61) (reads on "urgent"). Friz and Applicant's Background of the Invention fail to expressly disclose the first content representing a necessity of a maintenance service for the medical equipment without urgency. Kucek discloses sending non-urgent messages to a service center and field engineer (col. 3 lines 4-40). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Kucek within the system of Friz and Applicant's Background of the Invention with the motivation of distinguishing between urgent and non-urgent messages.

10. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz et al. (5,786,994) and Applicant's Background of the Invention as applied claim 1, in view of Babula et al. (6,381,557).

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(A) As per claims 19-22, Friz and Applicant's Background of the Invention fail to expressly disclose a second storage unit configured to store maintenance contract information of the medical equipment, wherein the determination unit determines the level based on the stored maintenance contract information, and wherein the stored maintenance contract information is changed by an external terminal connected to the apparatus through the network.

Babula discloses a second storage unit configured to store maintenance contract information of the medical equipment, wherein the determination unit determines the level based on the stored maintenance contract information, and wherein the stored maintenance contract information is changed by an external terminal connected to the apparatus through the network (col. 2 lines 10-32, col. 13 line 54 to col. 14 line 37, col. 21 line 48 to col. 23 line 24). Babula discloses transmitting a service request (col. 26 lines 11-23). As per the recitation of "the level," see the discussion in rejection of claim 1. As per the recitation of "the notice," see the discussion in rejection of claim 1.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Babula within the apparatus taught collectively by Friz and Applicant's Background of the Invention with the motivation of tracking licensing information between service providers and providers of medical diagnostic and imaging systems (Babula; col. 1 lines 27-40 and col. 2 lines 1-32).

11. Claims 31-32, 35, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ridolfo (6,735,549) in view of Applicant's Background of the Invention.

(A) As per claim 31, Ridolfo discloses a system comprising:

(a) a sensor system for monitoring a parameter indicative of an operating condition of at least one of the components in the system and an equipment failure and degradation module that receives an input from the sensor system (Fig. 2, col. 4 line 32 to col. 5 line 14, col. 12 lines 44-53);

(b) a digital computer for processing the measurements of the parameters (Fig. 2, col. 4 line 32 to col. 5 line 24, col. 12 lines 44-53) (It is respectfully submitted that a digital computer processing data must store the data in memory to process the data (Fig. 2)) ;

(c) an equipment failure and degradation module of a digital computer to predict if any equipment is in danger of failing and to predict the remaining equipment life by analyzing the measurements and processing the collected data sets using trend analysis, wherein the trend analysis monitors changes in selected measurement parameters over time and predicts if the equipment is in danger of failing (col. 4 line 66 to col. 5 line 29, col. 12 lines 40-63);

(d) a date-of-failure predictor module that determines and displays the date that a failure in the monitored component will likely occur prior to a probability, wherein the date-of-failure predictor module determines the date that a failure in the monitored

component will likely occur for the specified probability from a failure distribution model for the monitored component developed by the equipment failure degradation module (col. 4 line 66 to col. 5 line 29, col. 11 lines 8-25, col. 12 lines 40-63);

(e) a workstation for receiving a request for a date from the workstation (Fig. 2(10), col. 10 line 64 to col. 11 line 25, col. 12 lines 40-56); and

(f) a digital computer for calculating the date using a date-of-failure predictor module (Fig. 2(10), col. 10 line 64 to col. 11 line 25, col. 12 lines 40-56).

As per the recitation "medical equipment provided in a medical facility," Ridolfo does not expressly disclose this feature.

Applicant's Background of Invention discloses medical equipment provided in a medical facility (page 1, lines 19-26).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Applicant's Background of the Invention within the system of Ridolfo with the motivation of ensuring that equipment is repaired, refurbished, or replaced before the equipment fails (Ridolfo; col. 5 lines 7-14).

(B) As per claim 32, Ridolfo discloses issuing a notice to a workstation according to a date (Fig. 2, 10, col. 10 line 64 to col. 11 line 25).

(C) Claims 35 and 38 repeat the limitations of claims 31-32, and are therefore rejected for the same reasons given for those claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The cited but not applied prior art teaches system and method for predicting the time of future service events of a product (6,799,154) and reproduction test service apparatus for medical services, maintenance support information management apparatus, x-ray ct system, and maintenance service center apparatus (7,032,132).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn Bleck whose telephone number is (571) 272-6767. The Examiner can normally be reached on Monday-Thursday, 8:00am – 5:30pm, and from 8:30am – 5:00pm on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached at (571) 272-6776.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


14. Any response to this action should be mailed to:

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Hand-delivered responses should be brought to the Knox Building, Alexandria, VA.


Carolyn M. Bleck
Patent Examiner
Art Unit 3626